

Application No.: 10/022118

Case No.: 57319US002

Remarks

Claims 1 to 28 are pending. No claims have been canceled. Claims 1, 6-12, 14, 15, 20, 25 and 27 have been amended. Claim 28 has been added. Support for new claim 28 may be found on page 21, lines 5 to 26.

§ 112 Rejections

Claims 1 to 27 stand rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The rejections are traversed in part and avoided in part by amended presented herewith.

With respect to Items A and B, claim 1 has been amended to correct the defects noted in the Office Action.

With respect to item C, the Office Action asserts that the phrase "capable of further improving the oil- and/or water repellency or soil/stain release properties of a fibrous substrate treated with the fluorochemical urethane compounds" is subjective. Applicants disagree.

Useful hydrophilic auxiliary components are described by Applicants on page 17, lines 18 to 25, and page 21, lines 5 to 26.

As noted in the M.P.E.P. 2173.05(g), there is nothing inherently wrong with defining some part of an invention in functional terms. "Functional language does not, in and of itself, render a claim improper. In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971). A functional limitation must be evaluated and considered, just like any other limitation of the claim - for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step."

According to the Federal Circuit, a rejection under 35 USC § 112, second paragraph requires a determination of whether one skilled in the art would understand what is claimed when the claim is read in light of the specification. In regard to the instant claim, the composition requires two components; a) a fluorochemical urethane compound and b) a hydrophilic auxiliary

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compound. The auxiliary compound, b), is "capable of further improving the oil- and/or water repellency or soil/stain release properties of a fibrous substrate treated with the fluorochemical urethane compounds". It is clear from the claim itself that the improvement refers to fibrous substrates treated with solely the fluorochemical urethane compounds (a). Applicants further provide detailed test procedures for measuring oil repellency, water repellency, antisoiling, stain resistance, durability of oil repellency, stain release, and durability of stain release. Applicants have further provided numerous examples for preparing the compositions, and testing the compositions on fibrous substrates, with and without the auxiliary component (b). Thus, one skilled in the art, aided by Applicant's disclosure, would clearly be in possession of the instant composition.

As any improvement in either the performance or durability of the properties would be considered significant by one skilled in the art, and there is no art reference that would require Applicants to limit their claims to a particular numerical range, it is submitted that the rejection is without merit. Withdrawal of the rejection is respectfully solicited.

With respect to items D and E, the Office Action queries whether polymers having oxypropylene or oxytetramethylene groups are hydrophilic. Claims 6 and 10 have been amended to recite homopolymers of polyoxyethylene, and copolymers of polyoxyethylene with polyoxypropylene or polyoxytetramethylene. Polyoxyethylene/polyoxypropylene copolymers and polyoxyethylene /polyoxytetramethylene copolymers are known in the art and known to be hydrophilic.

With respect to item F, claim 7 has been amended to correct the antecedent.

With respect to item G, claim 8 has been amended to correct the antecedent.

With respect to item H, claim 9 has been amended as suggested by the Examiner.

With respect to item I, the Office Action queries whether the claimed limitations are based on the compound (a)(1). Clearly this is Applicants intention, as each of the reactive components (the hydrophilic polyoxyalkylene compounds, the silane compounds and the fluorochemical monofunctional compounds) are reactants of the first component. Nonetheless, claim 11 has been amended to more clearly indicate that the reference isocyanate groups are of the first component polyfunctional isocyanate compounds.

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Further, with respect to item I and claim 11, the Office Action asserts that Applicants have failed to specify the basis and type for the claimed percent values. Applicants assert that it is known in the art and it is clear from the specification that there is a one-to-one correspondence between the reactive functional groups of compounds (a)(2), (a)(3) and (a)(4) and the isocyanate groups of the polyfunctional isocyanate compounds (a)(1). As the number of isocyanate groups in a given sample can be calculated, there is nothing indefinite concerning the instant percentages.

With regard to item J, claim 12 has been amended to correct the dependency to claim 7.

With regard to item K, claims 14 and 15 have been amended to correct the antecedent basis.

With regard to item L, claims 20 and 25 have been amended to refer to weight percentages.

With regard to item M, claim 27 has been amended to provide proper antecedent basis.

In summary, Applicant submits (or Applicants submit) that the rejection of claims 1-27 under 35 USC § 112, second paragraph, has been overcome, and that the rejection should be withdrawn.

§ 102 Rejections

Claims 1-6, 11, 16 and 18-27 stand rejected under 35 USC § 102(e) as being anticipated by U.S. 6,646,088 (Fan et al.). The rejection is traversed for the following reasons:

Enclosed is a declaration under 37 CFR 1.132 stating that any invention disclosed but not claimed in the reference was derived from two of the inventors common to the instant application and the reference, and is not an invention "by another".

The rejection of claims 1-6, 11, 16 and 18-27 under 35 USC § 102(e) as being anticipated by U.S. 6,646,088 (Fan et al.) has been overcome and should be withdrawn.

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In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested. Allowance of claims 1-28, as amended, at an early date is solicited.

Respectfully submitted,

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